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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,224	04/23/2003	Hermann Renner	32301 W250	9213

7590 08/10/2005

Smith Gambrell & Russell  
Suite 800  
1850 M Street N W  
Washington, DC 20036

EXAMINER
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STRICKLAND, JONAS N

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/030,224	<b>Applicant(s)</b> RENNER, HERMANN	
	<b>Examiner</b> Jonas N. Strickland	<b>Art Unit</b> 1754	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 April 2003.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-13 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/02; 4/02</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3-6, 9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies (GB 1,090,294) in view of Clough (US Patent 5,279,803).

Applicant claims a process for the regeneration of a supported or unsupported suspension catalyst based on at least one platinum group metal, comprising dissolution of the platinum group metals present in aqueous HCl, using an oxidizing agent for platinum group metals, filtration of insoluble constituents and precipitation of the platinum group metals by means of a reducing agent at a pH in the range from 2 to 10, characterized in that precipitation is carried out in the presence of a chelating agent for one or more metals from the series of metals of groups 2a, 3a, 4a, of the periodic system and transition elements.

Davies discloses a process for the recovery of at least one platinum group metal, such as palladium, platinum, or gold from catalysts, which are supported in finely divided form on a carrier by treating the catalysts in an aqueous medium of HCl and hydrogen peroxide, an oxidizing agent (see col. 1, lines 11-17). Davies continues to disclose carrying out a filtration step and a precipitation step of the platinum group metals (p. 2, col. 1, lines 6-23). The reducing agent is comprised of formaldehyde (p.2, col. 1, lines 45-47). However, Davies does not disclose utilizing the reducing agent at a pH in the range of from 2-10 and wherein precipitation is carried out in the presence of a chelating agent.

Clough teaches a process for recovering precious metals, such as platinum group metals (col. 1, lines 28-31). Clough continues to teach wherein the recovery of the metal is carried out using a chelating agent along with a transition metal, wherein the pH may be maintained within a range of from 1-10 (see col. 5, line 16-col. 6, line

39). The chelating agent may be citric acid, tartaric acid, as well as nitrilotriacetic acid (col. 5, lines 33-53).

Therefore, it would have been obvious to one of ordinary skill in the art, to modify the teachings of Davies, based on the teachings, by utilizing a chelating agent during precipitation in the presence of a chelating agent for one or more metals from the series of metals of groups 2a, 3a, 4a, of the periodic system and transition elements, because Clough teaches a process for recovering precious metals, such as platinum group metals wherein the recovery of the metal is carried out using a chelating agent along with a transition metal, wherein the pH may be maintained within a range of from 1-10. Such modification would have been obvious to one of ordinary skill in the art, because one of ordinary skill in the art, would have expected a process for recovering platinum group metals, as taught by Clough, to have been similarly useful and applicable to a process for recovering platinum group metals, as taught by Davies.

With respect to claims 11-13, it would have been obvious to one of ordinary skill in the art to carry out a process with the precipitation of platinum group metals with a reducing agent comprised of formaldehyde being raised continuously or in stages, from 2-3 to 8-9, because Davies teaches using a formaldehyde reducing agent and Clough teaches wherein the pH may be varied between 1 to at least 10.

***Allowable Subject Matter***

5. Claims 2, 7, 8, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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6. The following is a statement of reasons for the indication of allowable subject matter: Instant claims 2, 7, 8, and 10 are allowable over the cited prior art, because the cited prior art fails to disclose having an unsupported catalyst based on at least 50 wt.% of palladium, 0-50 wt.% of one or more other platinum group metals and 0.001% to 10wt.% of at least one metal capable of forming complexes from the series of group 2a, 3a, 4a of the periodic system and transition metals without elements of the platinum group regenerated by carrying out precipitation in the presence of a chelating agent and one non-platinum group metal present.

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP 5,279,802; USP 5,280,004.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N. Strickland whose telephone number is 571-272-1359. The examiner can normally be reached on M-TH, 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonas N. Strickland  
August 5, 2005



**STANLEY S. SILVERMAN**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700